



MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: Top Engine Cleaner
Product Number (s): 05312, 85312AZ
Product Use: Engine tune-up and decarbonizer

Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com

1-215-674-4300 (General)
(800) 521-3168 (Technical)
(800) 272-4620 (Customer Service)

In Canada:

CRC Canada Co.
2-1246 Lorimar Drive
Mississauga, Ontario L5S 1R2
www.crc-canada.ca

1-905-670-2291

In Mexico:

CRC Industries Mexico
Av. Benito Juárez 4055 G
Colonia Orquídea
San Luís Potosí, SLP CP 78394
www.crc-mexico.com

52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

Section 2: Hazards Identification

Emergency Overview

DANGER: Extremely Flammable. Harmful or Fatal if Swallowed. Eye Irritant. Contents Under Pressure.
Appearance & Odor: Amber liquid, camphor odor

Potential Health Effects:

ACUTE EFFECTS:

EYE: Eye contact may result in moderate to severe irritation and redness. May cause moderate corneal injury. Effects may be slow to heal.

SKIN: Short term contact with skin may cause slight irritation. Excessive or prolonged and repeated contact may result in irritation, dryness, dermatitis, erythema, oil acne, cracking and defatting of the skin.

INHALATION: Inhalation of vapors or mist may be irritating to the respiratory passages. Prolonged exposure may result in headache, dizziness and nausea.

INGESTION: Moderate toxicity if swallowed. May result in nausea or stomach discomfort. Main hazard is aspiration into the lungs of oil mist during swallowing or vomiting. This can lead to chemical pneumonitis.

CHRONIC EFFECTS: Unknown

TARGET ORGANS: lungs (oil mist), blood (hemolysis)

Medical Conditions Aggravated by Exposure: Pre-existing skin disorders

See Section 11 for toxicology and carcinogenicity information on product ingredients.

Section 3: Composition/Information on Ingredients

| COMPONENT | CAS NUMBER | % by Wt. |
|-----------------------------|----------------------------|----------|
| Hydrotreated naphthenic oil | 64742-52-5 | 50 – 60 |
| 2-Butoxyethanol | 111-76-2 | 5 – 10 |
| Aromatic hydrocarbons | 64742-95-6 / 64742-94-5 | 5 – 10 |
| Diacetone alcohol | 123-42-2 | 2 – 6 |
| Liquefied petroleum gas | 68476-86-8 | 15 – 25 |

Section 4: First Aid Measures

- Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.
- Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.
- Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.
- Ingestion: If swallowed, do NOT induce vomiting. Seek immediate medical attention.
- Note to Physicians:* This product contains 2-butoxyethanol which, if ingested in significant quantities, may result in red blood cell hemolysis.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point: 151°F / 66°C (TCC)
Autoignition Temperature: > 600°F / 315°C

Upper Explosive Limit: ND
Lower Explosive Limit: ND

Fire and Explosion Data:

Suitable Extinguishing Media: Halon, dry chemical, foam, CO₂, water mist or fog, any Class B extinguishing agent.

Products of Combustion: Fumes, smoke, carbon monoxide

Explosion Hazards: Aerosol containers, when exposed to heat from fire, may build pressure and explode. Vapors can accumulate and create a flammable atmosphere.

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

Methods for Containment & Clean-up: Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Keep away from flames, sparks or hot surfaces. Use with adequate ventilation. Avoid contact with eyes and skin. Wash thoroughly after handling and before contacting food. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120°F / 49°C to prevent cans from rupturing.

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

| COMPONENT | OSHA | | ACGIH | | OTHER | | UNIT |
|--|--------|------|-------|------|-------|--------|-------------------|
| | TWA | STEL | TWA | STEL | TWA | SOURCE | |
| Hydrotreated naphthenic oil | 5 | NE | 5 | 10 | NE | | mg/m ³ |
| 2-Butoxyethanol | 50 (s) | NE | 20 | NE | NE | | ppm |
| Aromatic hydrocarbons | NE | NE | NE | NE | NE | | |
| Diacetone alcohol | 50 | NE | 50 | NE | NE | | ppm |
| Liquefied petroleum gas | 1000 | NE | 1000 | NE | NE | | ppm |
| N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated | | | | | | | |

Controls and Protection:

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as nitrile or neoprene. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: liquid
 Color: amber
 Odor: camphor
 Odor Threshold: ND
 Specific Gravity: 0.91
 Initial Boiling Point: ND
 Freezing Point: ND
 Vapor Pressure: ND
 Vapor Density: > 1 (air = 1)
 Evaporation Rate: slow
 Solubility: negligible
 Coefficient of water/oil distribution: ND
 pH: NA
 Volatile Organic Compounds: wt %: 36.4 g/L: 331.2 lbs./gal: 2.76

Section 10: Stability and Reactivity

Stability: Stable
 Conditions to Avoid: Sources of ignition
 Incompatible Materials: Strong oxidizers, halogens
 Hazardous Decomposition Products: Oxides of carbon
 Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

Acute Toxicity:

| Component | Oral LD50 (rat) | Dermal LD50 (rabbit) | Inhalation LC50 (rat) |
|-----------------------------|-----------------|----------------------|-----------------------|
| Hydrotreated naphthenic oil | > 5000 mg/kg | > 2000 mg/kg | 2.18 mg/L/4H |
| 2-Butoxyethanol | 470 mg/kg | 220 mg/kg | 450 ppm/4H |
| Aromatic hydrocarbons | > 3000 mg/kg | > 3160 mg/kg | No data |
| Diacetone alcohol | 4000 mg/kg | 13,500 mg/kg | No data |
| Liquefied petroleum gas | No data | No data | No data |

Chronic Toxicity:

| Component | OSHA Carcinogen | IARC Carcinogen | NTP Carcinogen | Irritant | Sensitizer |
|-----------------------------|--------------------|--------------------|-------------------|-----------|------------|
| Hydrotreated naphthenic oil | No | No | No | No | No |
| 2-Butoxyethanol | No | No | No | eye, skin | No |
| Aromatic hydrocarbons | No | No | No | No | No |
| Diacetone alcohol | No | No | No | eye | Unknown |
| Liquefied petroleum gas | No | No | No | No | No |

Reproductive Toxicity: No information available
Teratogenicity: No information available
Mutagenicity: No information available
Synergistic Effects: No information available

Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: hydrotreated naphthenic oil – 96 Hr LC50, Fathead minnow: >30,000 mg/L (static)
2-Butoxyethanol 96 Hr LC50, Bluegill sunfish: 1490 mg/L
 Persistence / Degradability: This product is not readily biodegradable.
 Bioaccumulation / Accumulation: No information available
 Mobility in Environment: No information available

Section 13: Disposal Considerations

Waste Classification: The dispensed liquid product is not a RCRA hazardous waste. (See 40 CFR Part 261.20 – 261.33)
 Aerosol containers should be fully emptied and depressurized before disposal. Empty containers may be recycled.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

Section 14: Transport Information

US DOT (ground): UN1950, Aerosols, flammable, 2.1, Limited Quantity**

ICAO/IATA (air): UN1950, Aerosols, flammable, 2.1, Limited Quantity

IMO/IMDG (water): UN1950, Aerosols, 2.1, Limited Quantity

Special Provisions: **This product can be classified and labeled as 'Consumer Commodity, ORM-D' for domestic ground shipping until January 1, 2014.
 If shipping as limited quantity by ground, note that shipping papers are not required.

Section 15: Regulatory Information

U.S. Federal Regulations:

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: None

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

| | | |
|------------------------------------|-----------------------|-----|
| Section 311/312 Hazard Categories: | Fire Hazard | Yes |
| | Reactive Hazard | No |
| | Release of Pressure | Yes |
| | Acute Health Hazard | Yes |
| | Chronic Health Hazard | No |

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
glycol ethers (8%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

Occupational Safety and Health Administration:

This product is regulated by the Hazard Communications Standard.

U.S. State Regulations:

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: Naphthalene (trace), Cumene

Consumer Products VOC Regulations:

This product cannot be sold for use in California and northern Utah. In other states with consumer products VOC regulations, this product is compliant as a Carburetor Cleaner.

State Right to Know:

New Jersey: 111-76-2, 68476-86-8, 123-42-2
Pennsylvania: 111-76-2, 68476-86-8, 123-42-2
Massachusetts: 111-76-2, 68476-86-8, 123-42-2
Rhode Island : 111-76-2, 68476-86-8, 123-42-2

Canadian Regulations:

Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulation and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: A, B5, D1A, D2B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

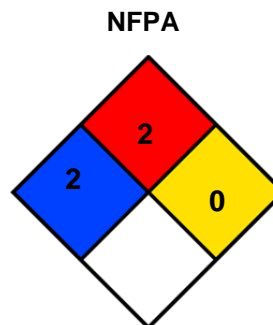
European Union Regulations:

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

Additional Regulatory Information: None

Section 16: Other Information

| HMIS® (II) | |
|----------------------|----------|
| Health: | 2 |
| Flammability: | 2 |
| Reactivity: | 0 |
| PPE: | B |



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick
CRC #: 684
Revision Date: 08/26/2014

Changes since last revision: Section 15: Consumer Products VOC Regulations

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

| | |
|--|---|
| ACGIH: American Conference of Governmental Industrial Hygienists | NA: Not Applicable |
| CAS: Chemical Abstract Service | ND: Not Determined |
| CFR: Code of Federal Regulations | NIOSH: National Institute of Occupational Safety & Health |
| DOT: Department of Transportation | NFPA: National Fire Protection Association |
| DSL: Domestic Substance List | NTP: National Toxicology Program |
| g/L: grams per Liter | OSHA: Occupational Safety and Health Administration |
| HMIS: Hazardous Materials Identification System | PMCC: Pensky-Martens Closed Cup |
| IARC: International Agency for Research on Cancer | PPE: Personal Protection Equipment |
| IATA: International Air Transport Association | ppm: Parts per Million |
| ICAO: International Civil Aviation Organization | RoHS: Restriction of Hazardous Substances |
| IMDG: International Maritime Dangerous Goods | STEL: Short Term Exposure Limit |
| IMO: International Maritime Organization | TCC: Tag Closed Cup |
| lbs./gal: pounds per gallon | TWA: Time Weighted Average |
| LC: Lethal Concentration | WHMIS: Workplace Hazardous Materials Information System |
| LD: Lethal Dose | |